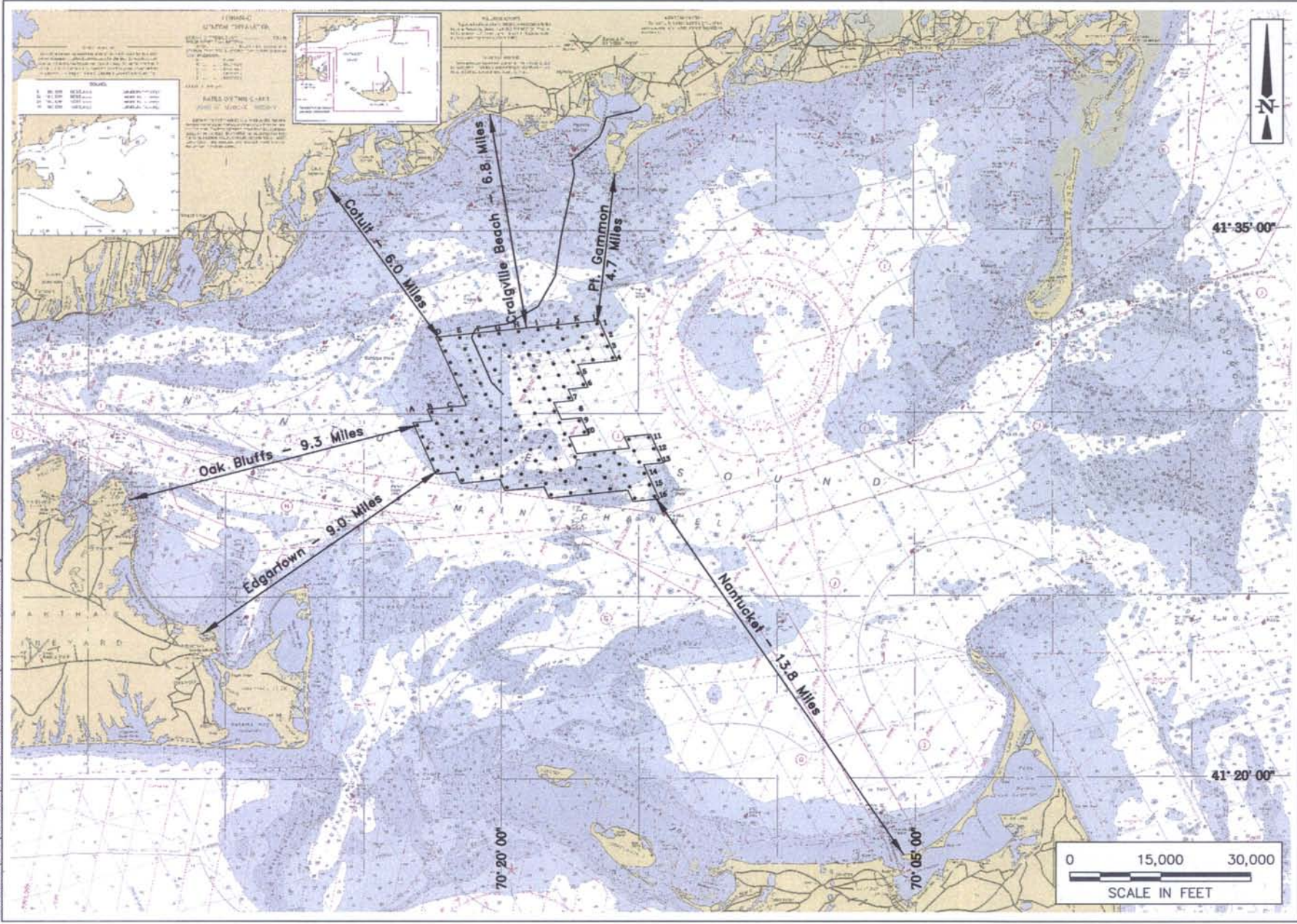


Figures

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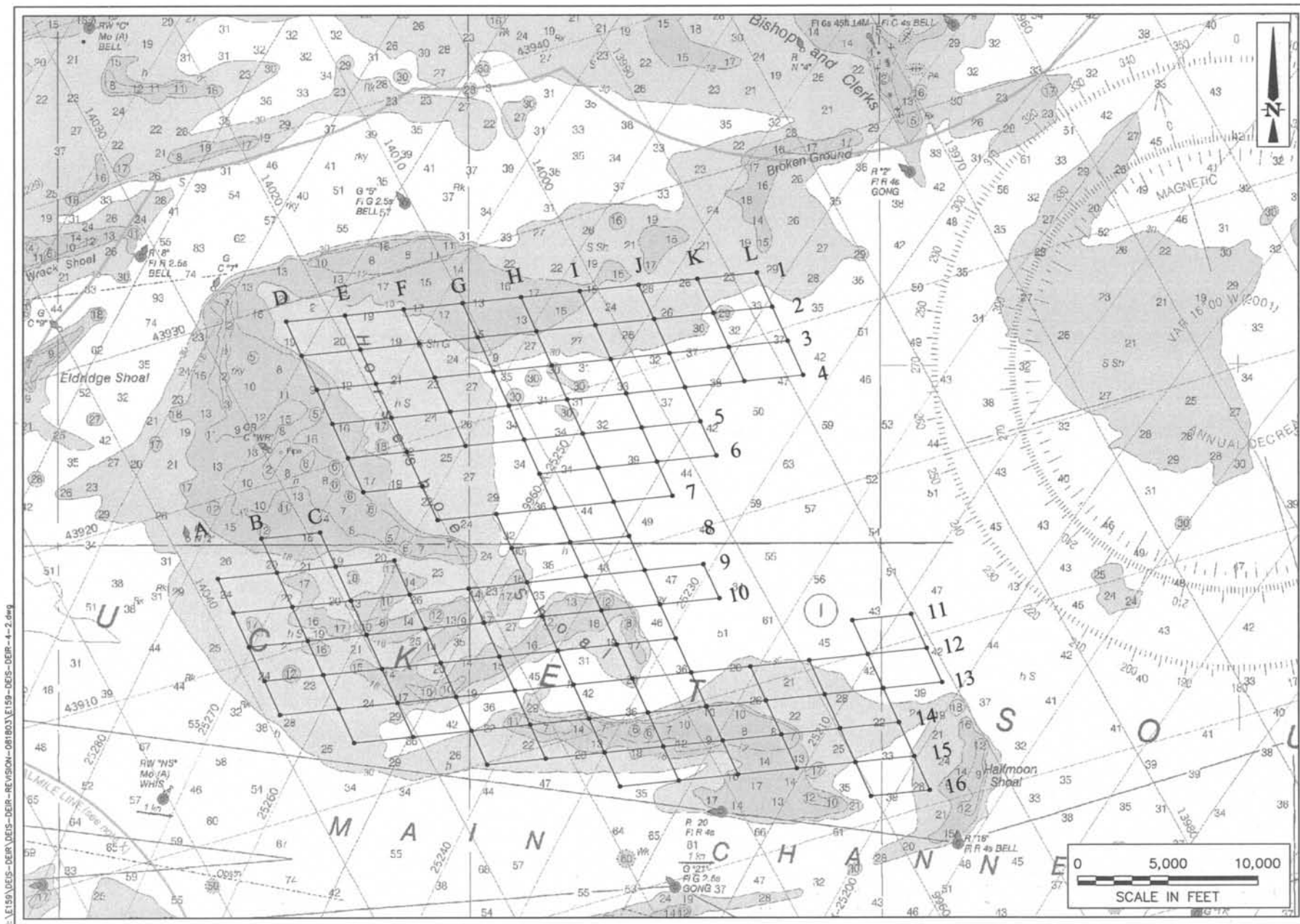


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NOAA Chart# 13237, Nantucket Sound & Approaches

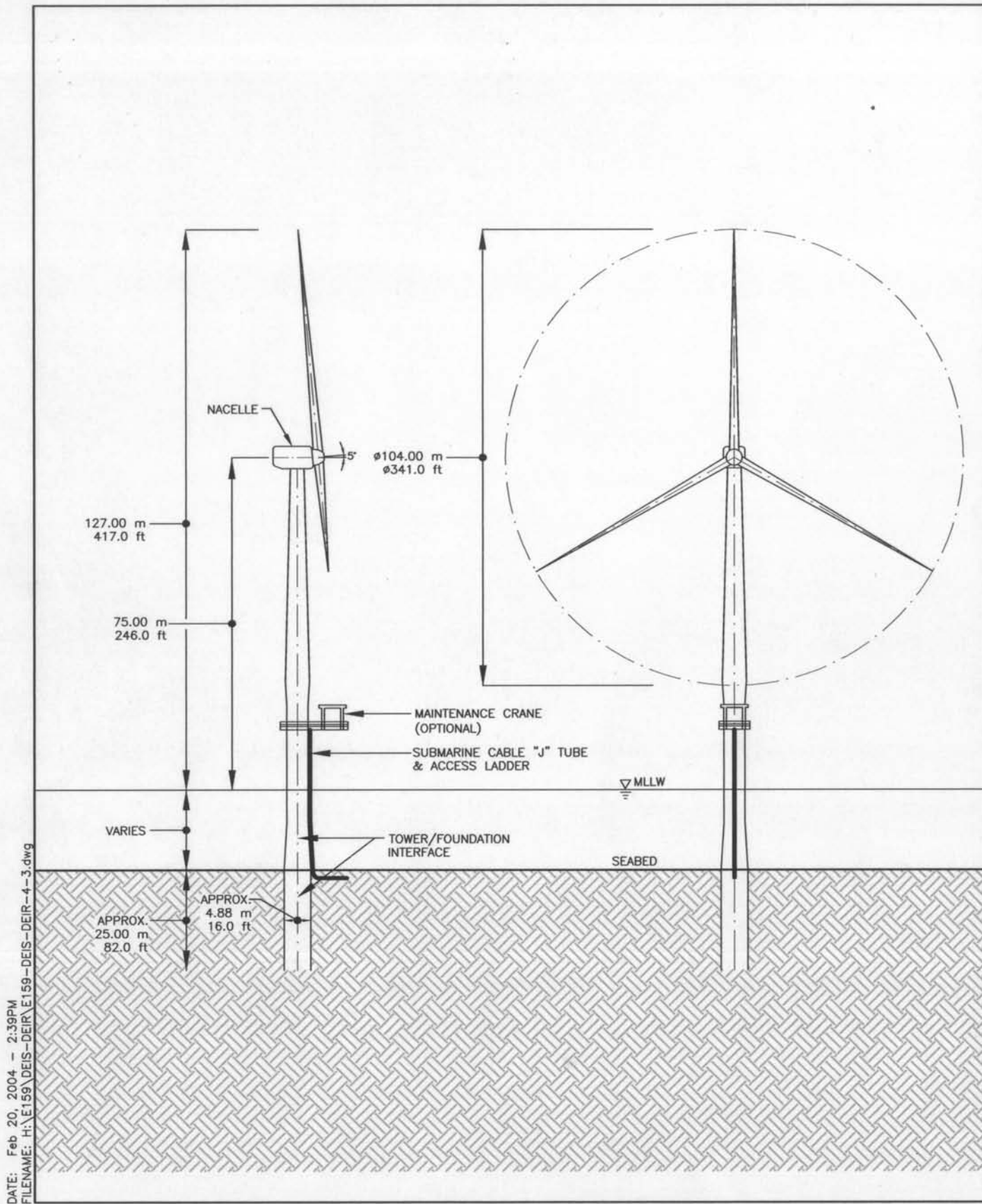
Figure
 4-1



NOAA Chart# 13237, Nantucket Sound & Approaches

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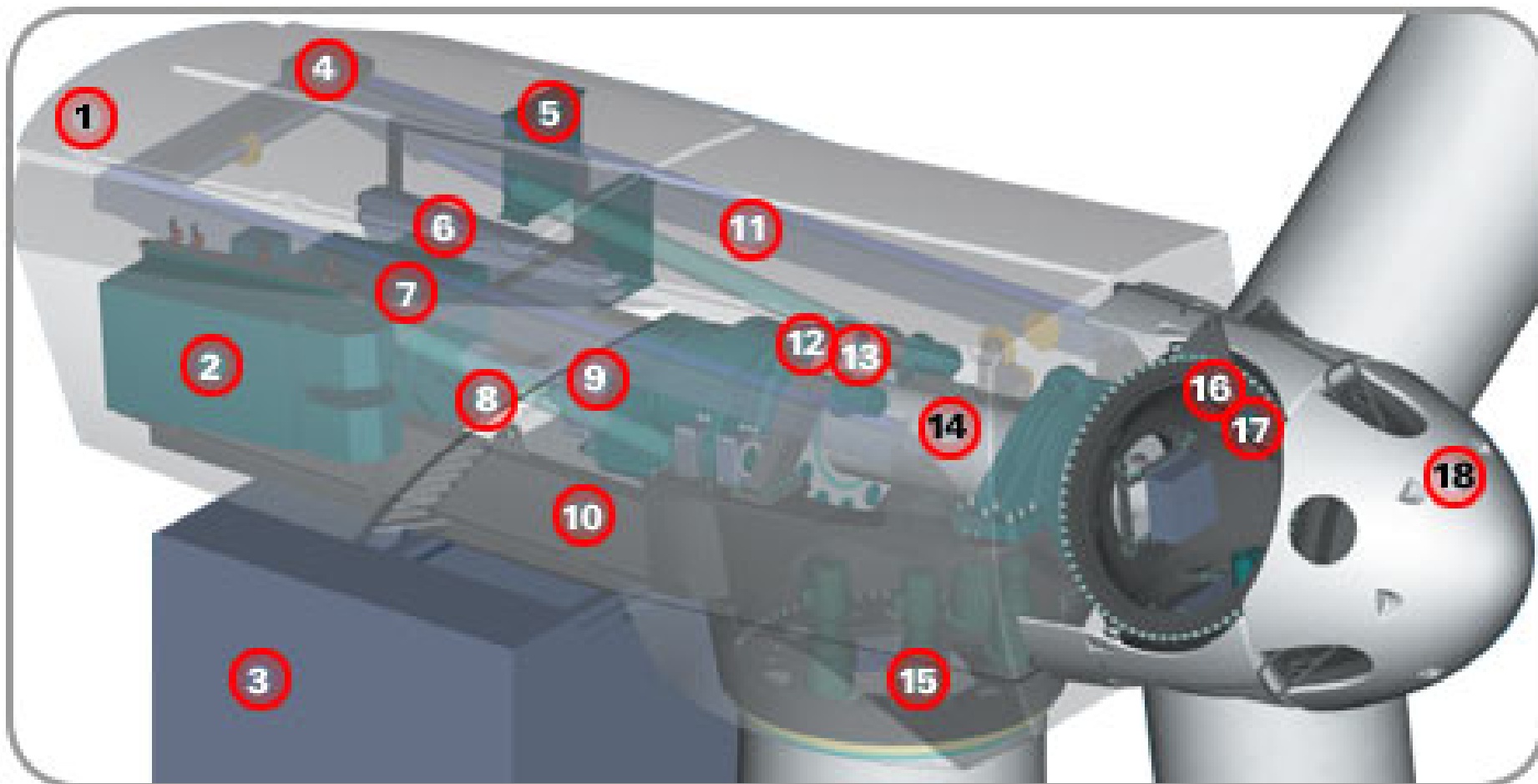
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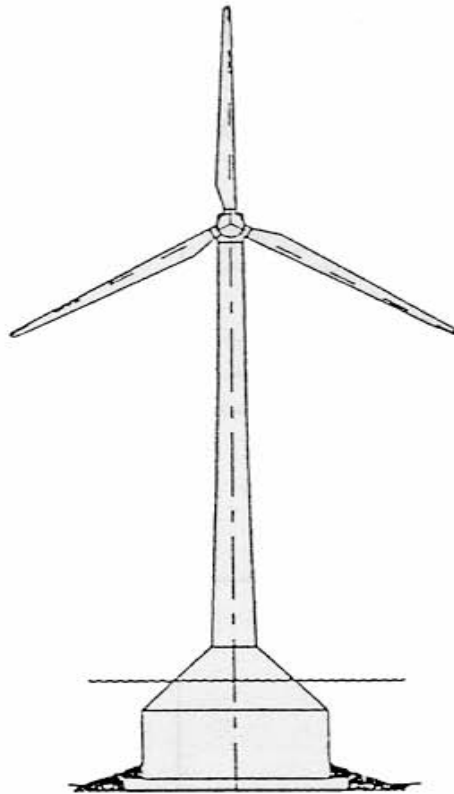
Typical Offshore Wind Turbine Generator

Source: Yttre Stengrunden, off the coast of Sweden. NEG Micon 2.0 MW turbines
Scale: not applicable
Copyright © ESS Group, Inc., 2004

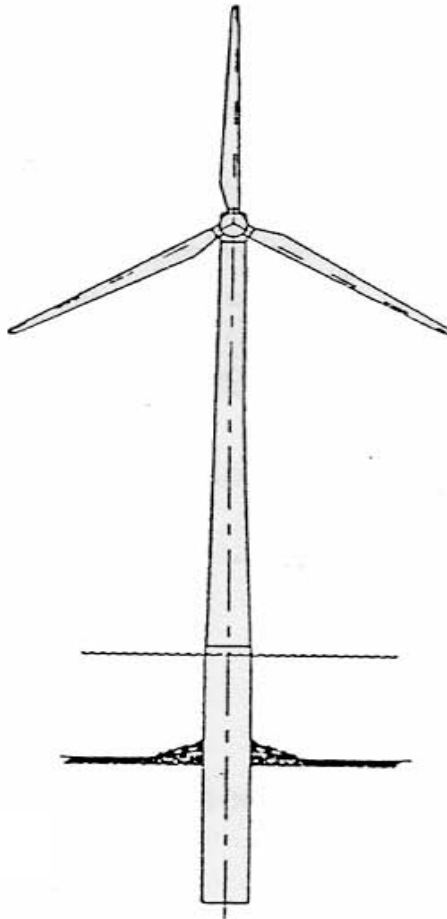
**Figure
4-4**



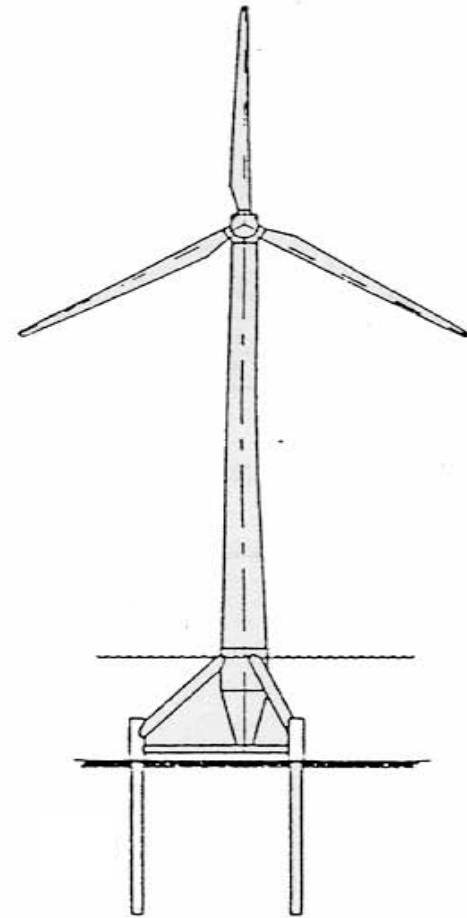
- | | | |
|-----------------------|----------------------------|-----------------|
| 1. Nacelle | 8. Impact Noise Reduction | 15. Yaw Drive |
| 2. Heat Exchanger | 9. Hydraulic Parking Brake | 16. Rotor Hub |
| 3. Offshore Container | 10. Main Frame | 17. Pitch Drive |
| 4. Small Gantry Crane | 11. Swivelling Crane | 18. Nose Cone |
| 5. Oil Cooler | 12. Gearbox | |
| 6. Control Panel | 13. Rotor Lock | |
| 7. Generator | 14. Rotor Shaft | |



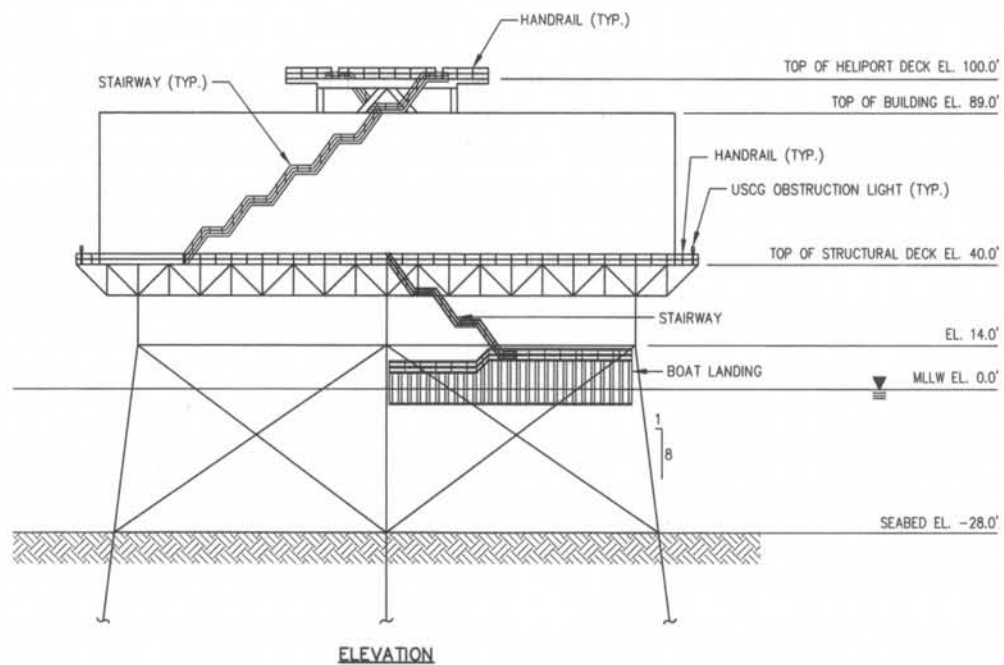
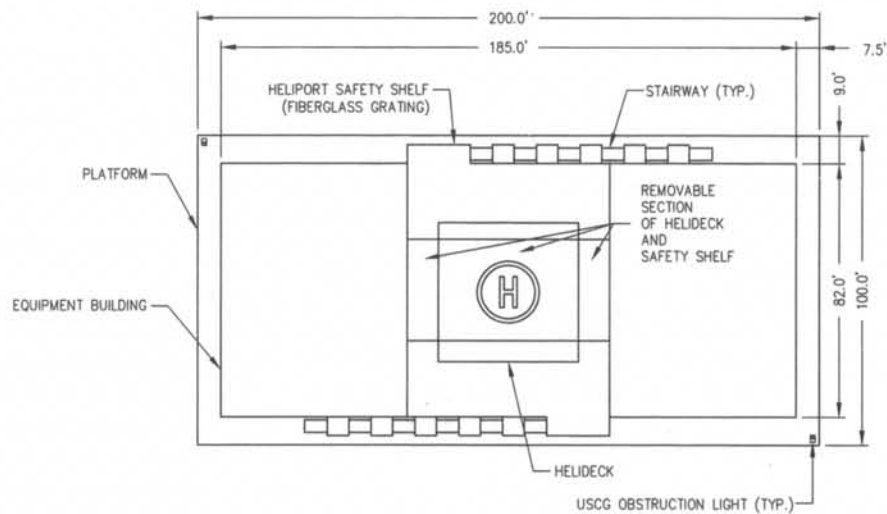
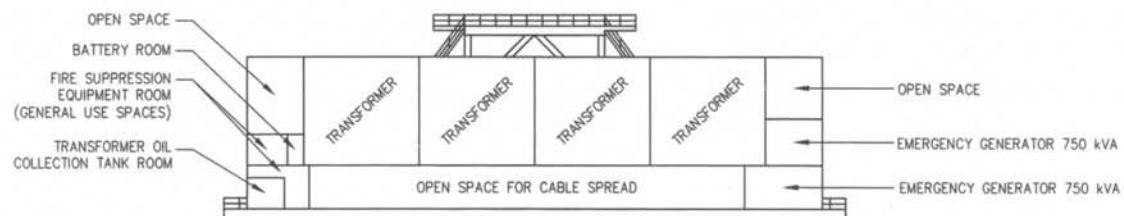
a) Gravity Base

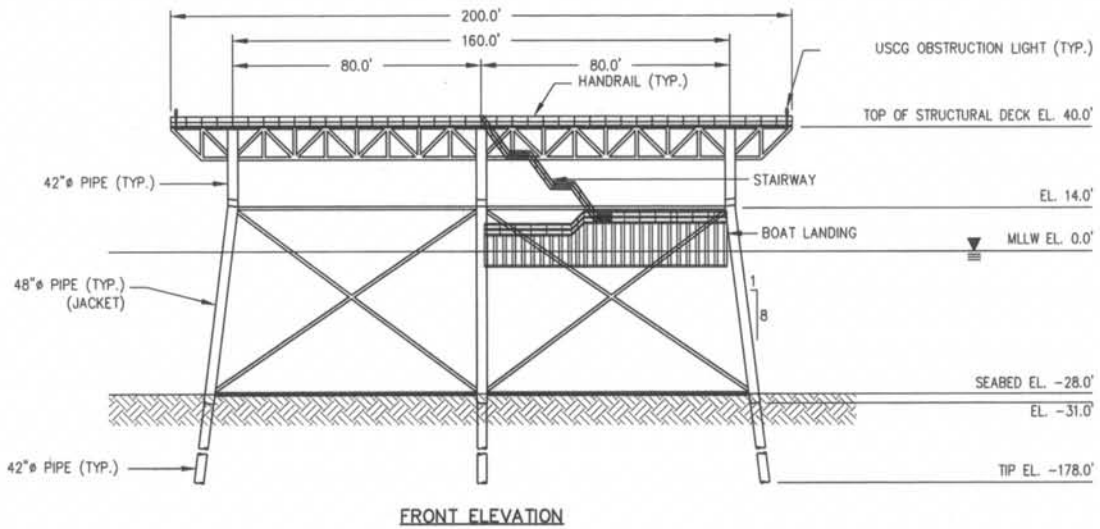
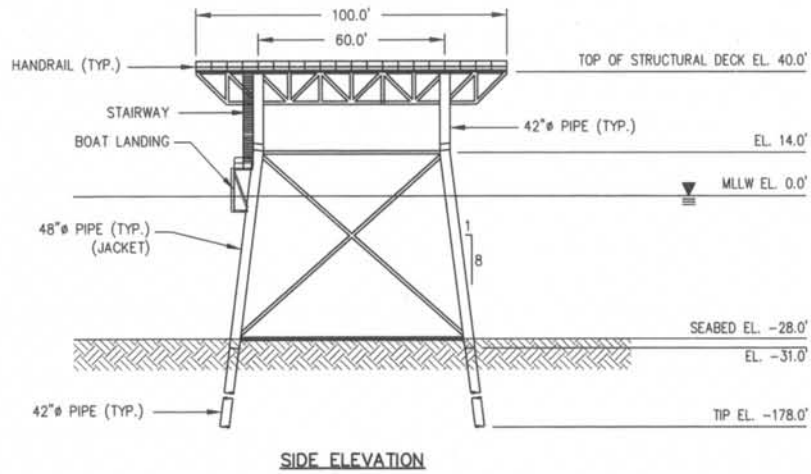


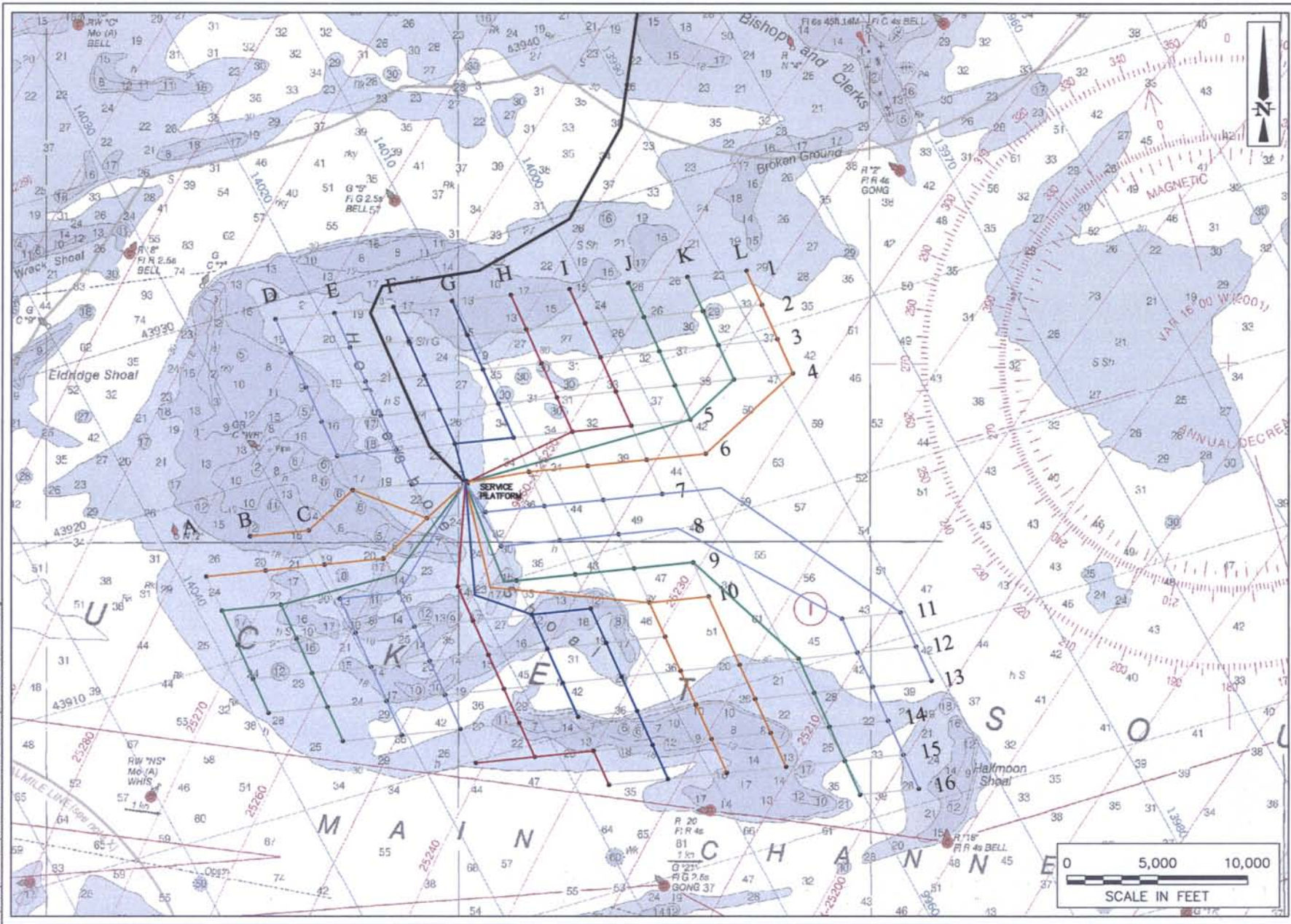
b) Monopile



c) tri-pod Hybrid







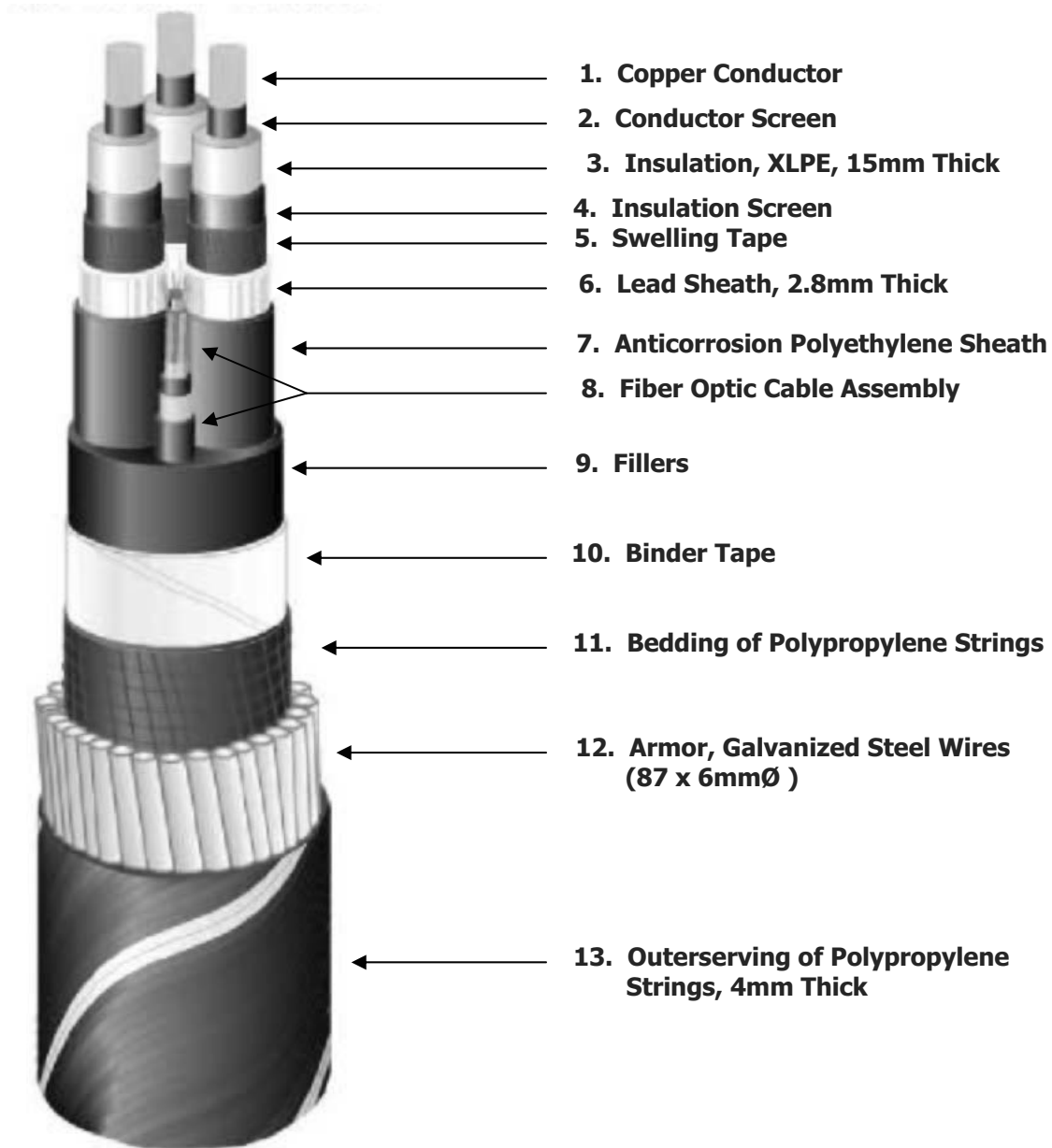
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Preliminary Inner-Array Layout
NOAA Chart# 13237, Nantucket Sound & Approaches

Figure
4-8

33 kV Submarine Cable
INDICATIVE ONLY – NOT TO SCALE

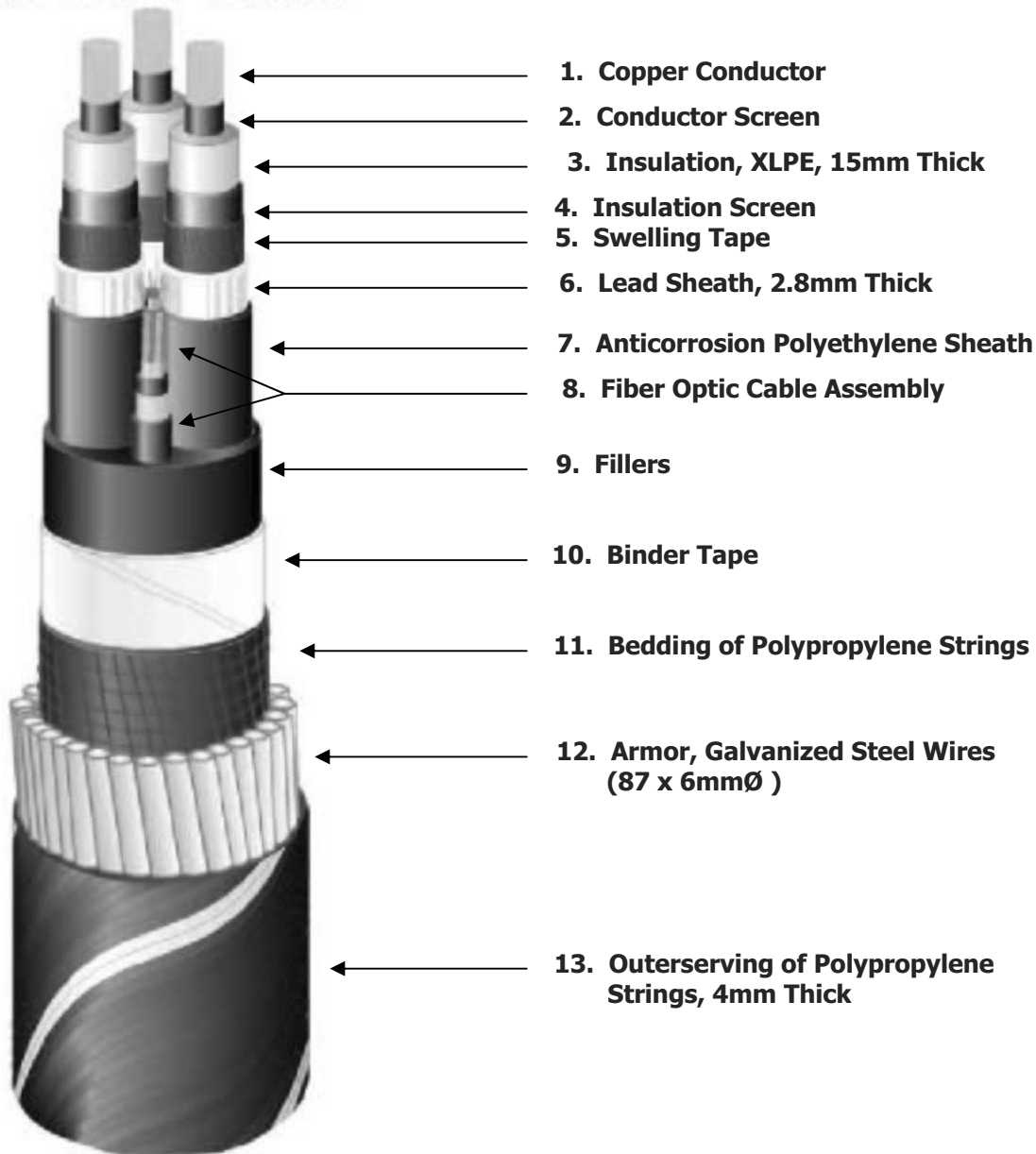


Approximate overall sizes:

- Diameter = 132 \pm 2 mm, 146 \pm 2 mm, 164 \pm 2 mm
- Weight in air = 30 \pm 2 kg/m, 47 \pm 2 kg/m, 60 \pm 2 kg/m

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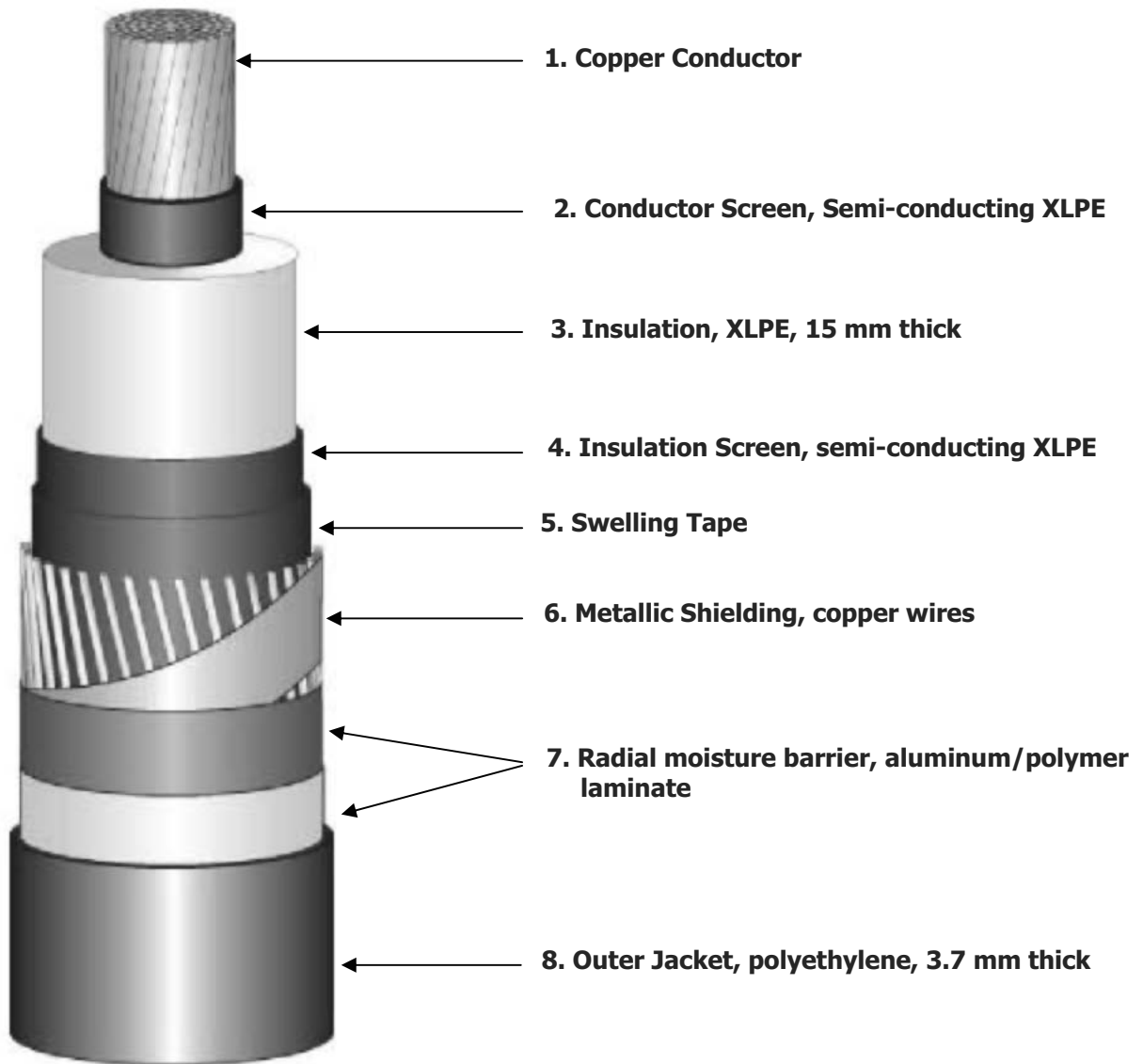
3x800 mm², 115 kV Submarine Cable
INDICATIVE ONLY – NOT TO SCALE



Approximate overall sizes:

- Diameter = 197 ±3 mm
- Weight in air = 81 kg/m

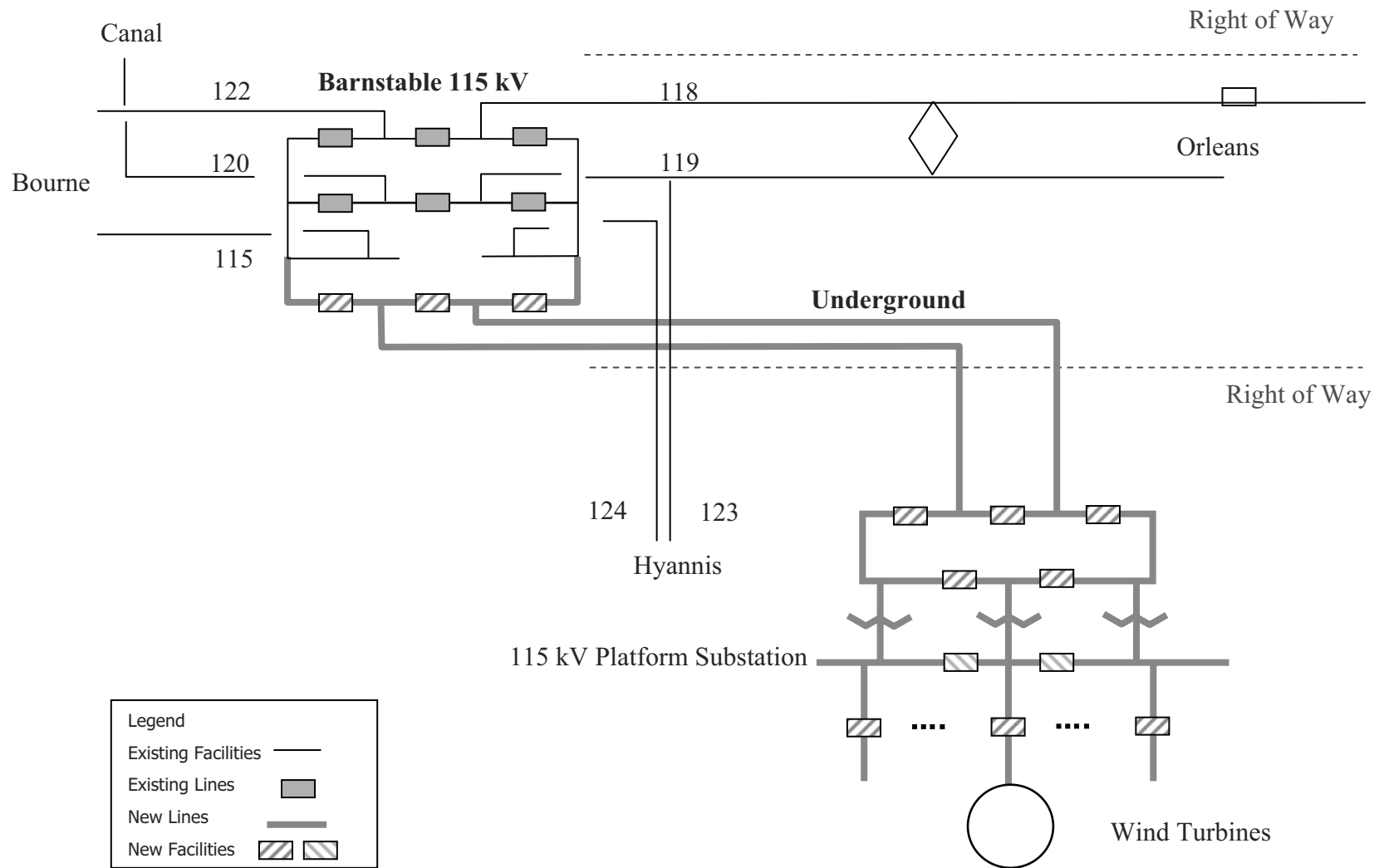
1x800 mm², 115 kV Upland Cable
INDICATIVE ONLY – NOT TO SCALE



Approximate overall sizes:

- Diameter = 83±2 mm
- Weight in air = 11.2 kg/m

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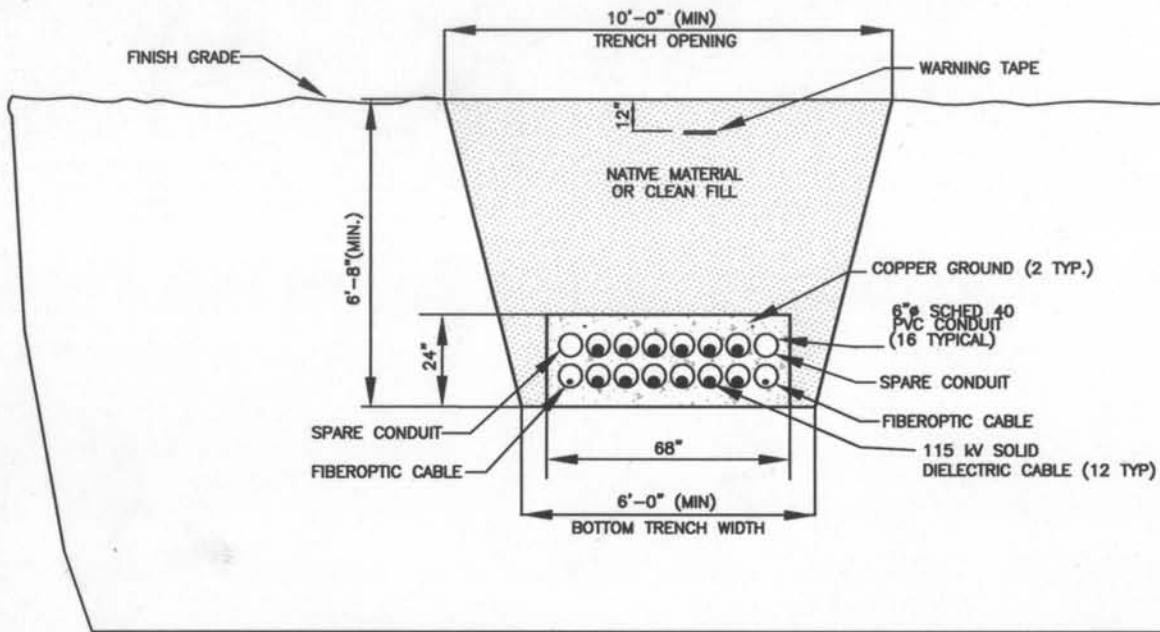


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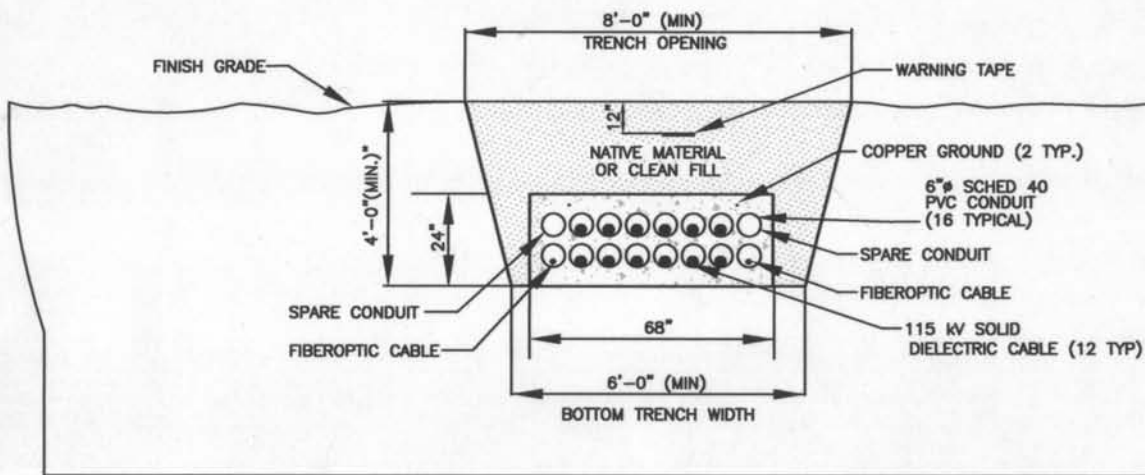
**Yarmouth Preferred Interconnection with
Barnstable Switching Station**

Source: NSTAR Electric
Scale: not applicable
Copyright © ESS Group, Inc., 2004

**Figure
4-12**



UPLAND CABLE TRENCH CROSS-SECTION (IN ROADWAYS)
CONCRETE ENCASED DUCTBANK



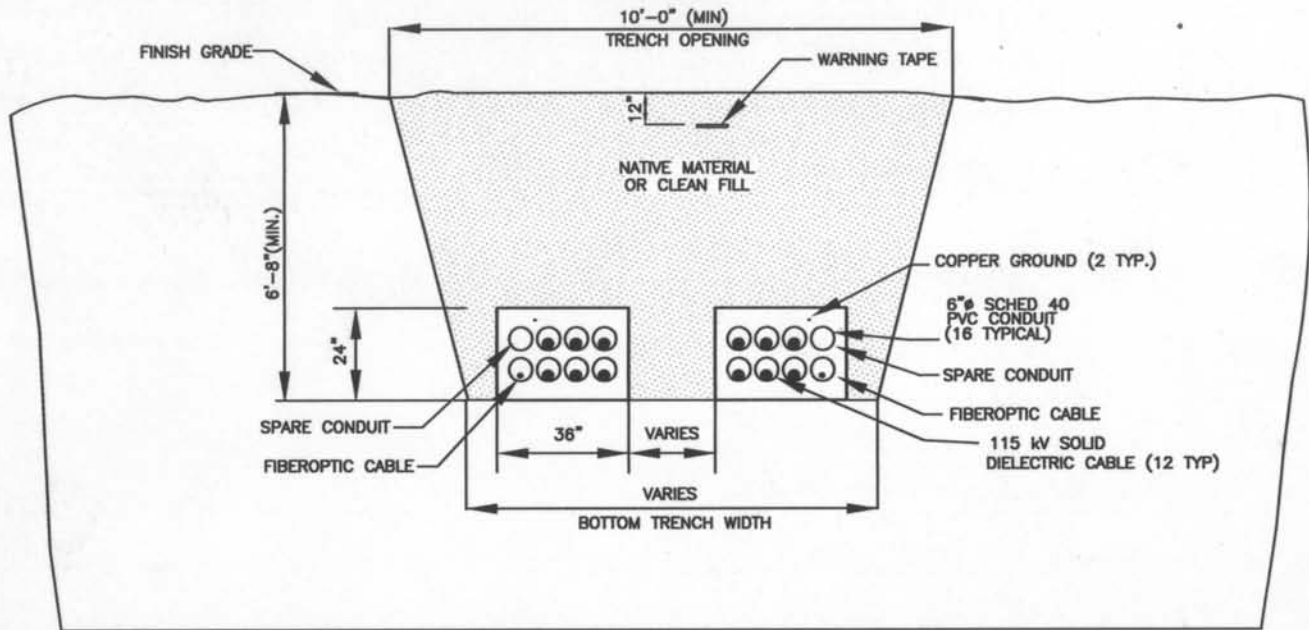
UPLAND CABLE TRENCH CROSS SECTION (IN R.O.W.)
CONCRETE ENCASED DUCTBANK

NOTE:

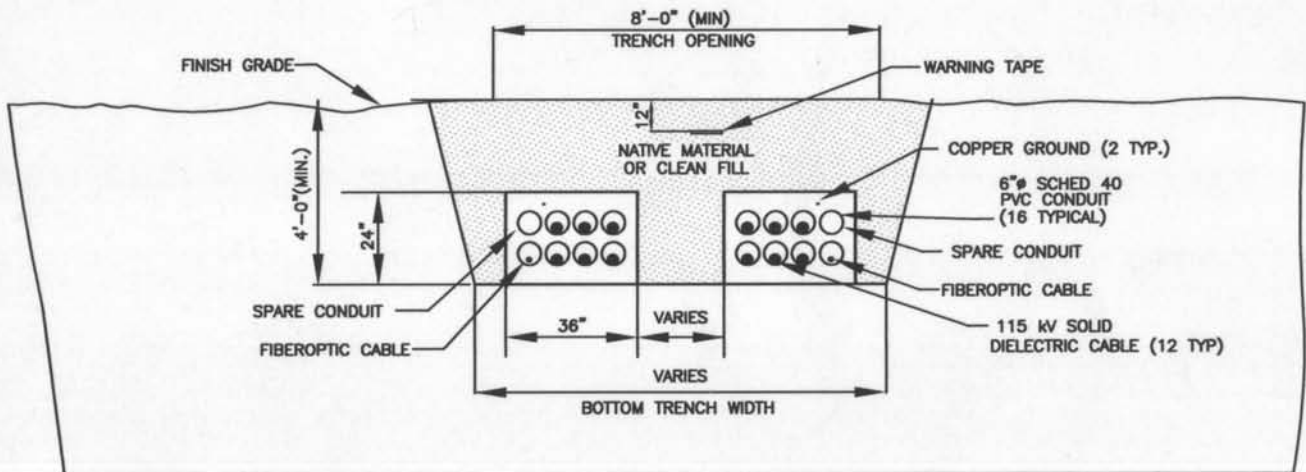
NATIVE MATERIAL TO BE USED ONLY IF DETERMINED TO HAVE APPROPRIATE THERMAL RESISTIVITY AND TO BE ACCEPTABLE IN ACCORDANCE WITH THE SOIL MANAGEMENT PLAN.

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UPLAND CABLE TRENCH 4-OVER-4 CROSS-SECTION (IN ROADWAYS)
CONCRETE ENCASED DUCTBANK

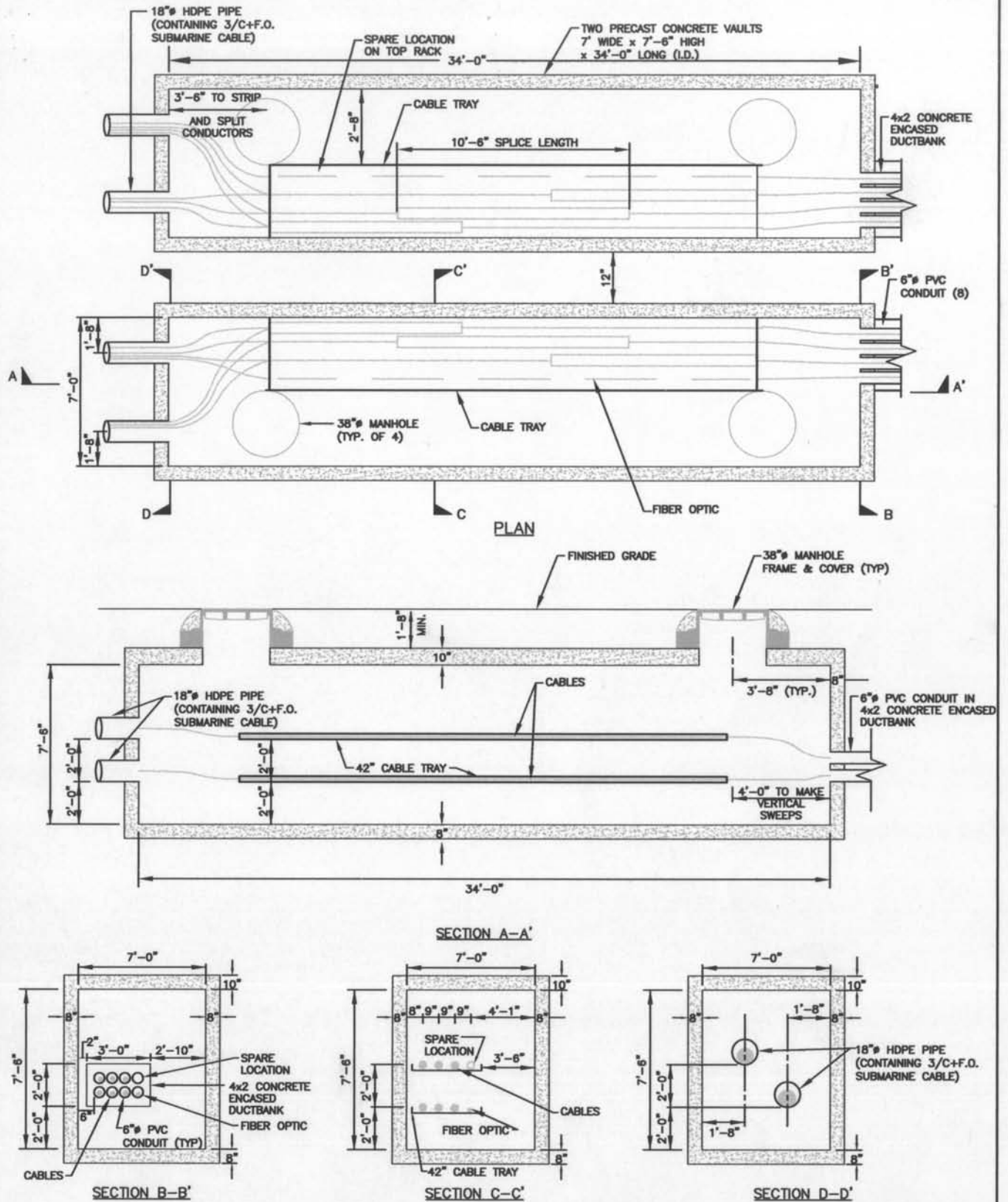


UPLAND CABLE TRENCH 4-OVER-4 CROSS SECTION (IN R.O.W.)
CONCRETE ENCASED DUCTBANK

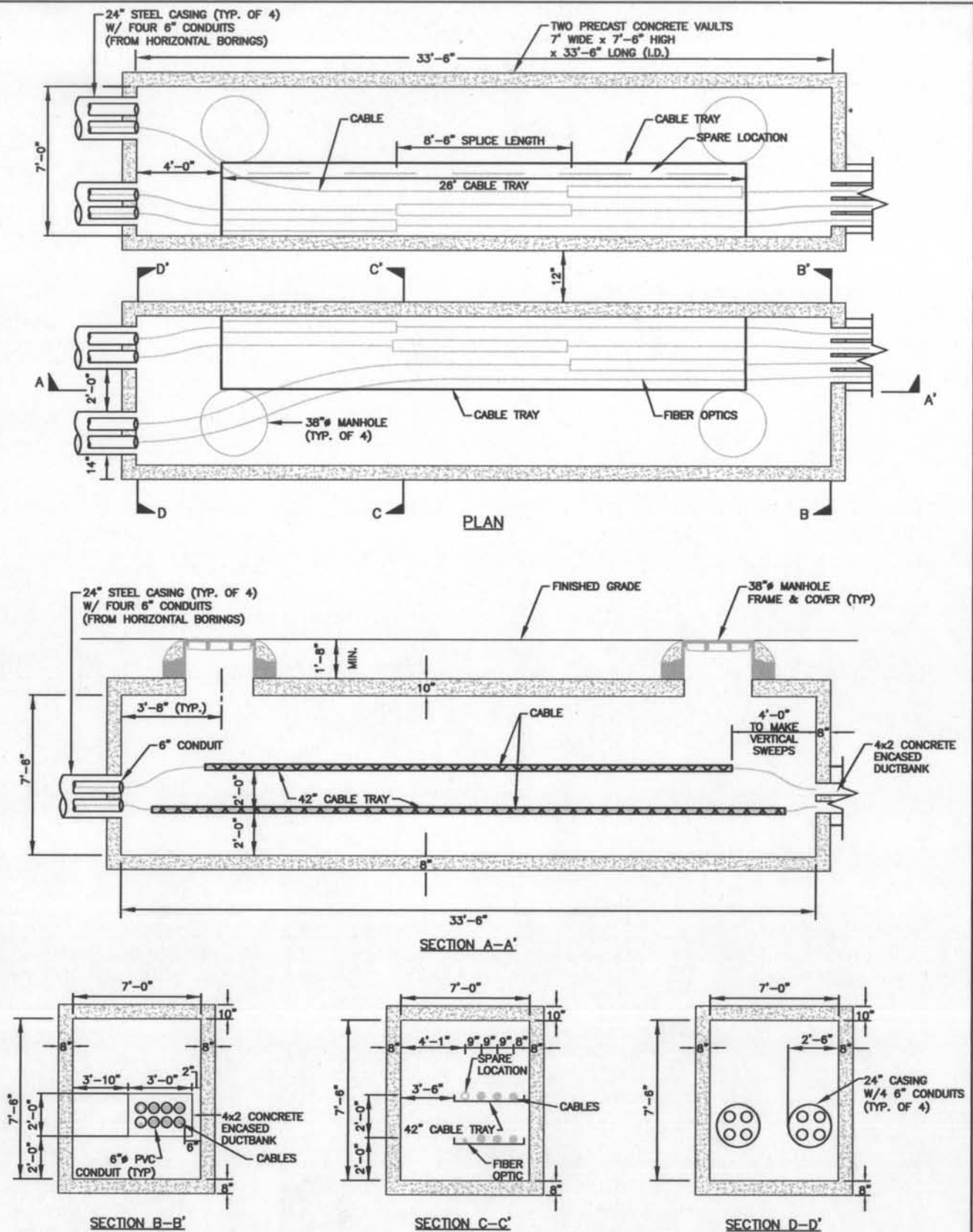
NOTE:

NATIVE MATERIAL TO BE USED ONLY IF DETERMINED TO HAVE APPROPRIATE THERMAL RESISTIVITY AND TO BE ACCEPTABLE IN ACCORDANCE WITH THE SOIL MANAGEMENT PLAN.

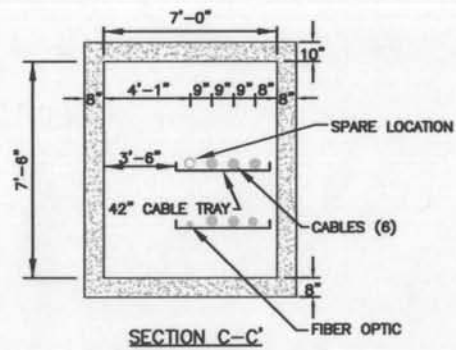
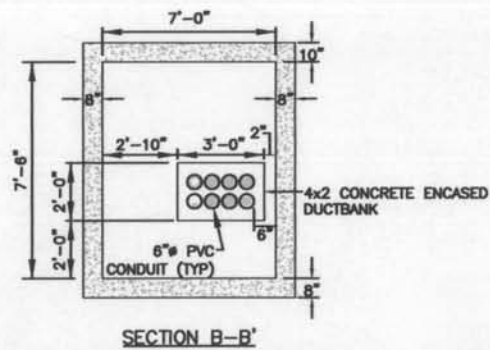
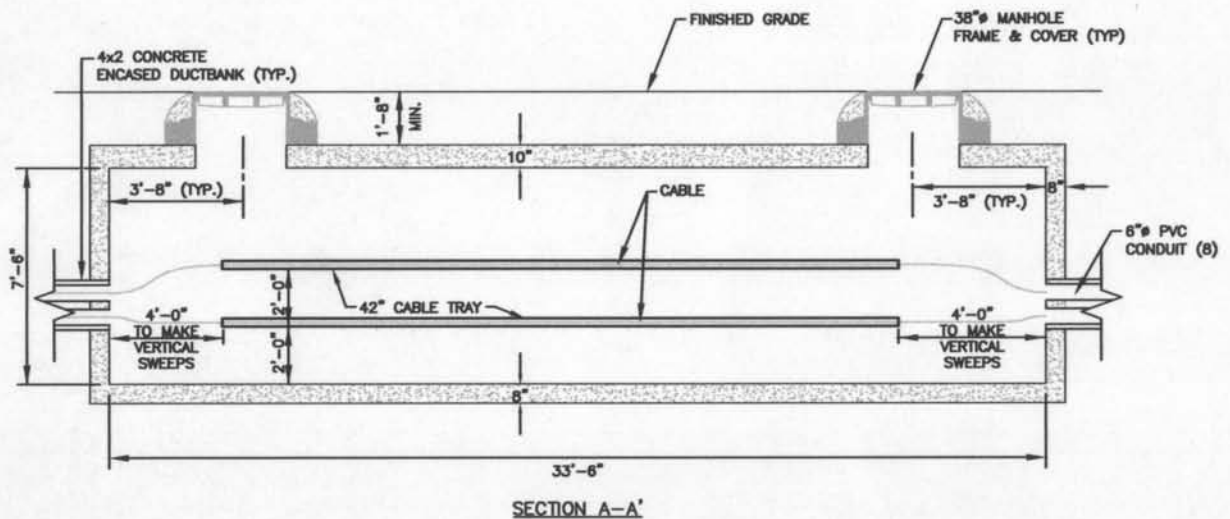
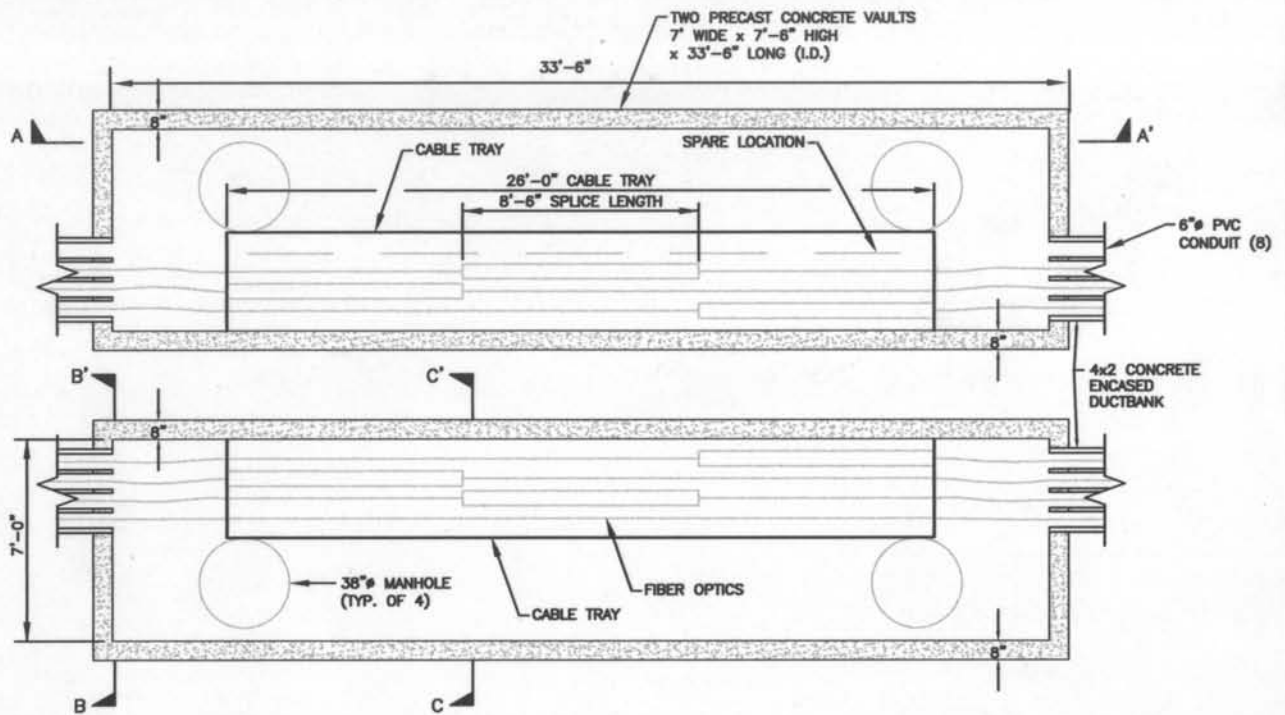
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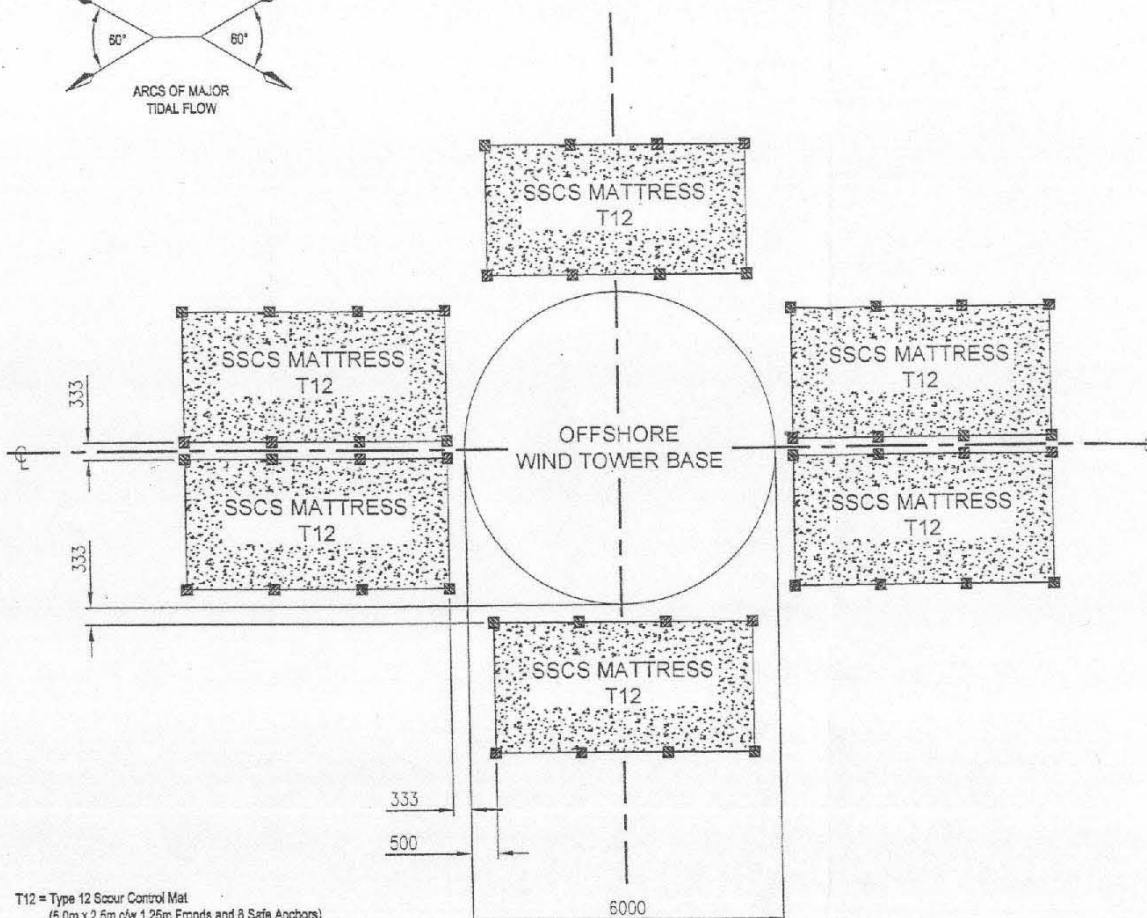
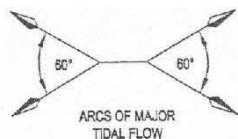
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Source: A2Sea's vessel – Ocean Ady
Scale: not applicable
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Typical Installation Vessel

**Figure
4-18**



NOTES: - OFFSHORE WIND ENERGY TOWER

1. MATS for SCOUR PROTECTION as indicated on this DRAWING to be by SEABED SCOUR CONTROL SYSTEMS Ltd.

SAMPLE REQUIREMENT per Wind Tower:

6 No. SSCS Type 12 SCOUR CONTROL MATS 5.0m x 2.5m, BUOYANT FROND HEIGHT 1.25m, with 8 in No. Safe Anchors. Weight in Air: 100kg, Weight Submerged: 45kg. FROND Tensile Strength >681N and up to 1181N. Mat Layout to face into MAXIMUM tidal flow directions.

It is IMPORTANT that these Scour Control Mats be installed a.s.a.p. Tower Installation.

2. MATS to be positioned and anchored by two (2) competent DIVERS. Mats are crane deployed by 2 leg wire rope slings (Slings can be supplied by SSCS). Detailed Installation Instruction are supplied with the Mats.

3. NOMINAL MINIMUM CLEAR DISTANCE between Tower Base and Scour Control Mats to be >8' (>228mm), Normal/Standard: 12' to 15' (305 to 380mm).

4. INSTALLATION SEQUENCE as required by Dive Team. During Installation the SAFE NETS must **NOT** BE REMOVED UNTIL ALL ADJACENT MATS HAVE BEEN FULLY INSTALLED to prevent Diver or ROV entanglement.

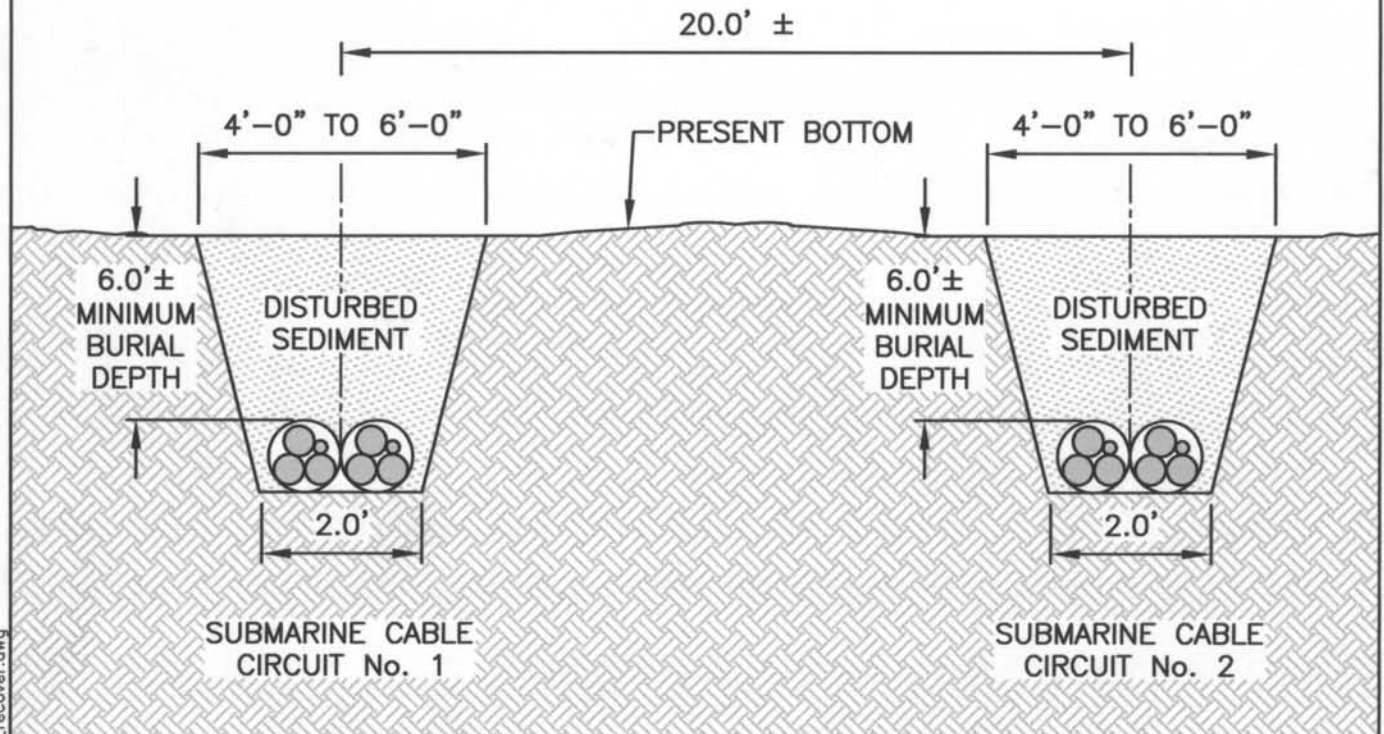
5. MATS should **NOT** be installed at Entry/ Attachment Points intended for Cables. Such Scour Control Mats can be installed immediately AFTER any subsequent connections to the Tower Base have been completed and BEFORE Winter Storms, and Mats should be continued out to the inner end of any cable trenching.

6. Additional Stability Post Installation - Frond induced Sedimentation: EACH Type 12 Mat, 5m x 2.5m, the submerged sediment bank should be in the range:

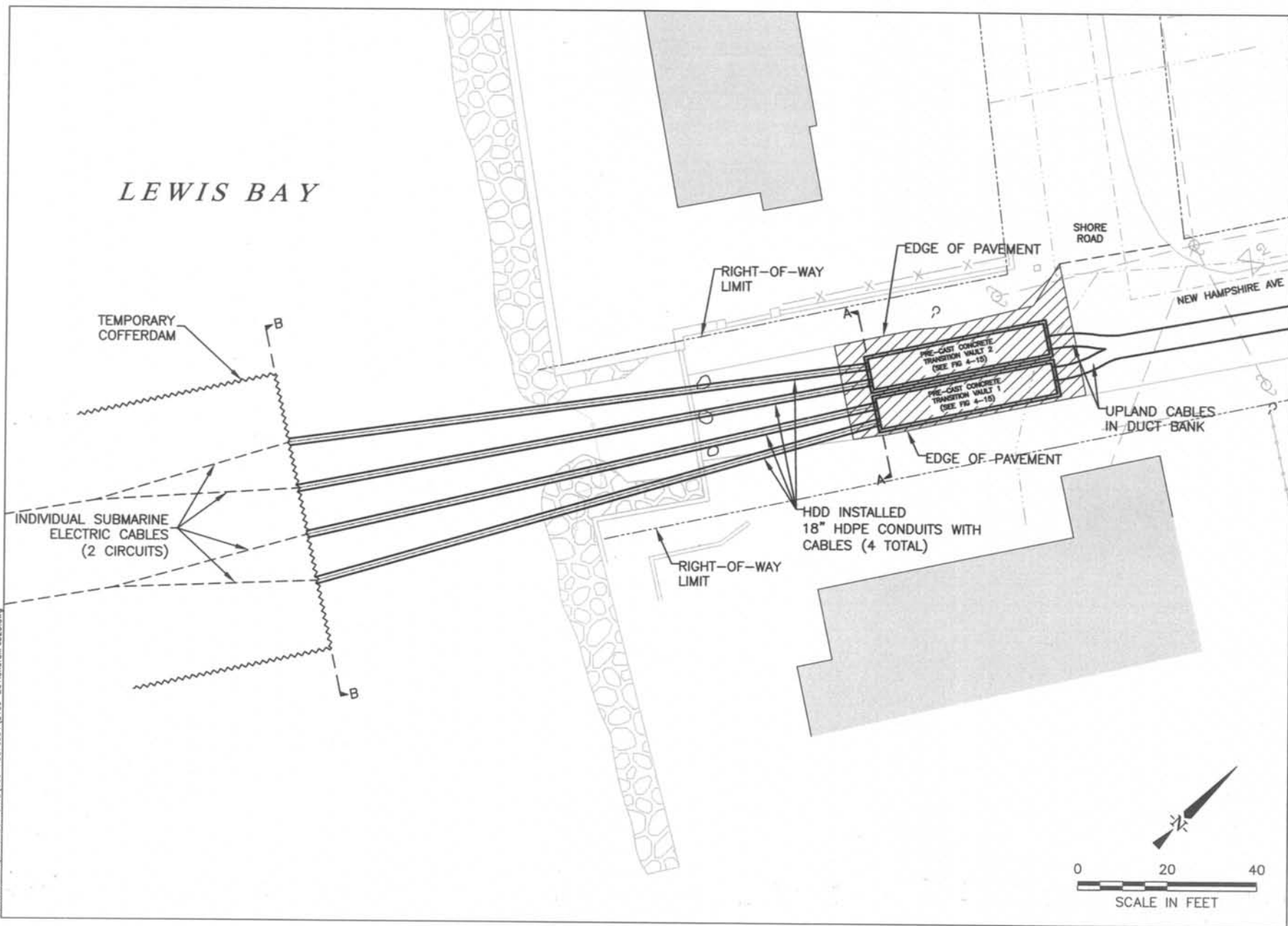
~ 10.2 tonnes to 12.4 tonnes submerged weight over each mat; this hold down is additional to the retention provided by the eight (8) Safe Anchors and also excludes gently sloping extension of sediment bank down to seabed in a smooth curve up to 2.2m away from mat edge.

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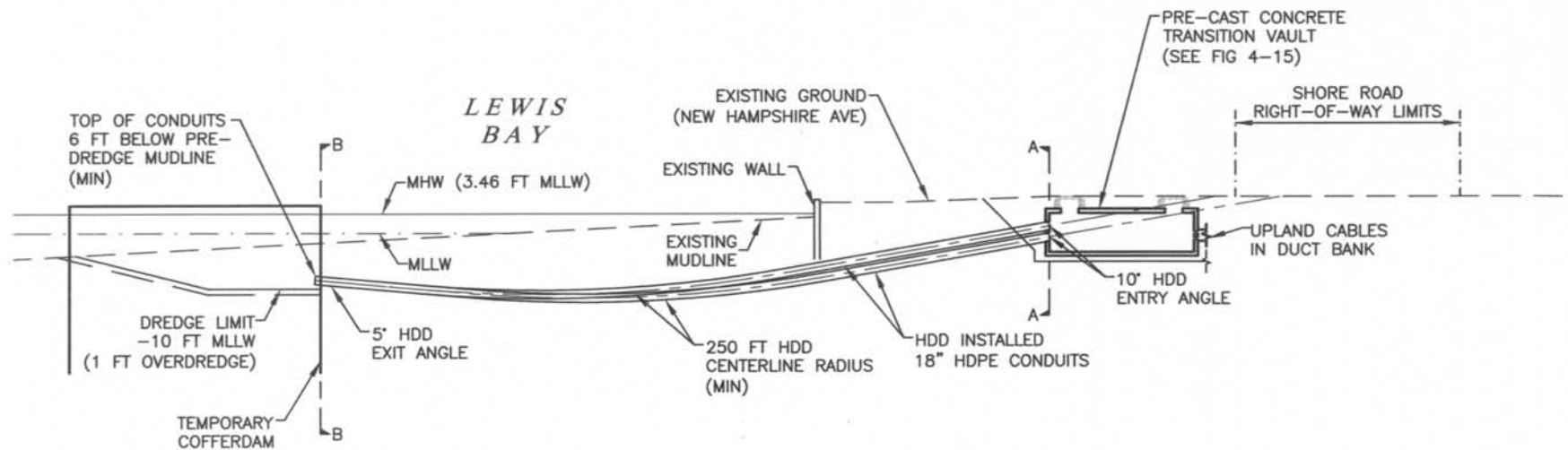
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DATE: Feb 23, 2004 - 2:07PM
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NOTES:

1. UPLAND ELEVATIONS IN PLAN ARE REFERENCED TO NGVD29.
2. THERE IS NO ACCEPTED NGVD29 CONNECTION TO MLLW IN THE PROJECT AREA. RELATIONSHIP BETWEEN MLLW AND NGVD29 APPROXIMATED TO GENERATE PROFILE.
3. EXISTING GROUND ELEVATIONS IN PROFILE ARE ESTIMATED ONLY.
4. ACTUAL RELATIONSHIP MUST BE ESTABLISHED THROUGH SURVEY PRIOR TO FURTHER DESIGN EFFORTS.

